Sequence Listing

SEQ. ID NO. 1: NUCLEOTIDE SEQUENCE FOR PgIB

LOCUS pglb 2169 bp DNA SYN 17-FEB-2009
DEFINITION
ACCESSION pglb
KEYWORDS .
SOURCE .
ORGANISM C. jejuni 81116

REFERENCE 1 (bases 1 to 2169)
AUTHORS Self
JOURNAL Unpublished.
BASE COUNT 650 a 264 c 386 g 869 t
ORIGIN

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   1 ATGTTGAAAA AAGAGTATTT AAAAAACCCT TATTTAGTTT TGTTTGCGAT GATTATATTA
  61 GCTTATGTTT TTAGTGTATT TTGCAGGTTT TATTGGGTTT GGTGGGCAAG TGAGTTTAAT
 121 GAGTATTTTT TCAATAATCA GTTAATGATC ATTTCAAATG ATGGCTATGC TTTTGCTGAG
 181 GGCGCAAGAG ATATGATAGC AGGTTTTCAT CAGCCTAATG ATTTGAGTTA TTATGGATCT
 241 TCTTTATCCG CGCTTACTTA TTGGCTTTAT AAAATCACAC CTTTTTCTTT TGAAAGTATC
 301 ATTTTATATA TGAGTACTTT TTTATCTTCT TTGGTGGTGA TTCCTACTAT TTTGCTAGCT
 361 AACGAATACA AACGTCCTTT AATGGGCTTT GTAGCTGCTC TTTTAGCAAG TATAGCAAAC
 421 AGTTATTATA ATCGCACTAT GAGTGGGTAT TATGATACGG ATATGCTGGT AATTGTTTTG
 481 CCTATGTTTA TTTTATTTTT TATGGTAAGA ATGATTTTAA AAAAAGACTT TTTTTCATTG
 541 ATTGCCTTGC CGTTATTTAT AGGAATTTAT CTTTGGTGGT ATCCTTCAAG TTATACTTTA
 601 AATGTAGCTT TAATTGGACT TTTTTTAATT TATACACTTA TTTTTCATAG AAAAGAAAAG
 661 ATTTTTTATA TAGCTGTGAT TTTGTCTTCT CTTACTCTTT CAAATATAGC ATGGTTTTAT
 721 CAAAGTGCCA TTATAGTAAT ACTTTTTGCT TTATTCGCCT TAGAGCAAAA ACGCTTAAAT
 781 TTTATGATTA TAGGAATTTT AGGTAGTGCA ACTTTGATAT TTTTGATTTT AAGTGGTGGG
 841 GTTGATCCTA TACTTTATCA GCTTAAATTT TATATTTTTA GAAGTGATGA AAGTGCGAAT
 901 TTAACGCAGG GCTTTATGTA TTTTAATGTC AATCAAACCA TACAAGAAGT TGAAAATGTA
 961 GATCTTAGCG AATTTATGCG AAGAATTAGT GGTAGTGAAA TTGTTTTTTT GTTTTCTTTG
1021 TTTGGTTTTG TATGGCTTTT GAGAAAACAT AAAAGTATGA TTATGGCTTT ACCTATATTG
1081 GTGCTTGGGT TTTTAGCCTT AAAAGGGGGG CTTAGATTTA CCATTTATTC TGTACCTGTA
1141 ATGGCCTTAG GATTTGGTTT TTTATTGAGC GAGTTTAAGG CTATAATGGT TAAAAAATAT
1201 AGCCAATTAA CTTCAAATGT TTGTATTGTT TTTGCAACTA TTTTGACTTT AGCTCCAGTA
1261 TTTATCCATA TTTACAACTA TAAAGCGCCA ACAGTTTTTT CTCAAAATGA AGCATCATTA
1321 TTAAATCAAT TAAAAAATAT AGCCAATAGA GAAGATTATG TGGTAACTTG GGCGGCTTAT
1381 GGTTATCCTG TGCGTTATTA TAGCGATGTG AAAACTTTAG TAGATGGTGG AAAGCATTTA
1441 GGTAAGGATA ATTTTTTCCC TTCTTTTGCT TTAAGCAAAG ATGAACAAGC TGCAGCTAAT
1501 ATGGCAAGAC TTAGTGTAGA ATATACAGAA AAAAGCTTTT ATGCTCCGCA AAATGATATT
1561 TTAAAAACAG ACATTTTGCA AGCCATGATG AAAGATTATA ATCAAAGCAA TGTGGATTTG
1621 TTTCTAGCTT CATTATCAAA ACCTGATTTT AAAATCGATA CGCCAAAAAC TCGTGATATT
1681 TATCTTTATA TGCCCGCTAG AATGTCTTTG ATTTTTTCTA CGGTGGCTAG TTTTTCTTTT
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1801 GATGTTAAAA ATGGAGAAAT TTATCTTAGC AACGGAGTGG TTTTAAGCGA TGATTTTAGA
1861 AGTTTTAAAA TAGGTGATAA TGTGGTTTCT GTAAATAGTA TCGTAGAGAT TAATTCTATT
1921 AAACAAGGTG AATACAAAAT CACTCCAATT GATGATAAGG CTCAGTTTTA TATTTTTTAT
1981 TTAAAGGATA GTGCTATTCC TTACGCACAA TTTATTTTAA TGGATAAAAC CATGTTTAAT
2041 AGTGCTTATG TGCAAATGTT TTTTTTAGGA AATTATGATA AGAATTTATT TGACTTGGTG
2101 ATTAATTCTA GAGATGCTAA GGTTTTTAAA CTTAAAAATT ACCCATACGA TGTTCCAGAT
2161 TACGCTTAA
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SEQ. ID NO. 2: AMINO ACID SEQUENCE FOR PgIB

722 AA

MLKKEYLKNPYLVLFAMIILAYVFSVFCRFYWVWWASEFNEYFFNNQLMIISNDGYAFAE
GARDMIAGFHQPNDLSYYGSSLSALTYWLYKITPFSFESIILYMSTFLSSLVVIPTILLA
NEYKRPLMGFVAALLASIANSYYNRTMSGYYDTDMLVIVLPMFILFFMVRMILKKDFFSL
IALPLFIGIYLWWYPSSYTLNVALIGLFLIYTLIFHRKEKIFYIAVILSSLTLSNIAWFY
QSAIIVILFALFALEQKRLNFMIIGILGSATLIFLILSGGVDPILYQLKFYIFRSDESAN
LTQGFMYFNVNQTIQEVENVDLSEFMRRISGSEIVFLFSLFGFVWLLRKHKSMIMALPIL
VLGFLALKGGLRFTIYSVPVMALGFGFLLSEFKAIMVKKYSQLTSNVCIVFATILTLAPV
FIHIYNYKAPTVFSQNEASLLNQLKNIANREDYVVTWAAYGYPVRYYSDVKTLVDGGKHL
GKDNFFPSFALSKDEQAAANMARLSVEYTEKSFYAPQNDILKTDILQAMMKDYNQSNVDL
FLASLSKPDFKIDTPKTRDIYLYMPARMSLIFSTVASFSFINLDTGVLDKPFTFSTAYPL
DVKNGEIYLSNGVVLSDDFRSFKIGDNVVSVNSIVEINSIKQGEYKITPIDDKAQFYIFY
LKDSAIPYAQFILMDKTMFNSAYVQMFFLGNYDKNLFDLVINSRDAKVFKLKIYPYDVPD
YA

SEQ. ID NO. 3: OLIGONUCLEOTIDE CASSETTE IN pGVXN64 PLASMID

5`-AATTCTGCAGGATCCTCTAGAAGCTTGG

SEQ. ID NO. 4: OLIGONUCLEOTIDE CASSETTE IN pGVXN64 PLASMID

5`AATTCCAAGCTTCTAGAGGATCCTGCAG

SEQ. ID NO. 5: COMPLETE NUCLEOTIDE SEQUENCE ENCODING THE *SHIGELLA DYSENTERIAE* O1 ANTIGEN IN THE PGVXN64 PLASMID

LOCUS i-O1Cluste 10174 bp DNA SYN 23-JAN-2009
DEFINITION Inverted O1Cluster
ACCESSION i-O1Cluste
KEYWORDS .
SOURCE Unknown.
ORGANISM Unknown
Unclassified.
REFERENCE 1 (bases 1 to 10174)
AUTHORS Self
JOURNAL Unpublished.
BASE COUNT 3223 a 1581 c 2074 g 3296 t
ORIGIN

1 ATGAAAAACC ATAAGGTTAG TATTATCATC CCCTGTTTTA ATAACGGAAA AACTATAGAA
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121 GATGGACCGT CAGATAATAG CTGGAATATT TTAAAGAAAT TAAGCTCATT GTATGGAAAT
181 GTTTTTGCTT TTAATAATGA GGACAATTCA GGGCCGTCAT TTTCCAGGAT TAAAGGGGTT
241 TCACTATCTA CGGGGCATTT TTTGTCATTT TTGGATGCAG ATGATTACTG GCATCCAAAA
301 AAACTAGAAT TACAACTATC ATTTATTAAT GATGAAAACT TGGATTTTTT AGGTTCAACG
361 TGTTCCATTG GTGAGAAAAA TAACCAAGAA ATTAACCAAG GAATTAAAAA AGAACATTTA

421 AAATTAAAAA TAATTTCATT TAACATGATG TTGTTTAAGA ATTATTTCCA GACTCCAGCT
481 GTCATTATGA AAAGAGATAT TTTTATTCCA TTTAATGAGA ATCAGCGTTT TTCAGAGGAC
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841 ATGCTATGAT TTTGTTTAGA TTGGATTTAA TAAAAACACT AACCAACAAA GGGATTTCAG
901 TCTATGCTTT TGCTACTGAC TATAATGATT CATCCAAGGA AATAATAAAA AAAGCAGGCG
961 CCATTCCTGT TGATTATAAT TTAAGTCGCA GTGGTATTAA CCTTGCTGGT GATTTATGGA
1021 ATACTTACTT ATTAAGTAAA AAACTAAAGA AGATAAAACC AGATGCTATT TTATCTTTTT
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1261 ACTCATTAAT ACTCCTTAAC AAGGATGATT ATCATGATTT GATAGATAAA TACAAAATAA
1321 AATTAAAATC TTGCCATATT CTTGGTGGCA TTGGTTTAGA TATGAATAAT TACTGTAAAA
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9841 ATGGTCATAT CGTATGCGTT CGTATGGCTA TAAGCTATAT ATTCATAATG ATATTCACAT
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SEQ. ID NO. 6: EPA AA SEQUENCE (643 AA), CONTAINING TWO GLYCOSYLATION SITES, WITH SIGNAL SEQUENCE

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NGALLRVYVPRWSLPGFYRTGLTLAAPEAAGEVERLIGHPLPLRLDAITGPEEEGGRVTI
LGWPLAERTVVIPSAIPTDPRNVGGDLDPSSIPDKEQAISALPDYASQPGKPPREDLK

SEQ. ID NO. 7: PROCESSED EPA AA SEQUENCE (624 AA), CONTAINING TWO GLYCOSYLATION SITES

AEEAFDLWNECAKACVLDLKDGVRSSRMSVDPAIADTNGQGVLHYSMVLEGGNDALK
LAIDNALSITSDGLTIRLEGGVEPNKPVRYSYTRQARGSWSLNWLVPIGHEKPSNIKVFIH
ELNAGNQLSHMSPIYTIEMGDELLAKLARDATFFVRAHESNEMQPTLAISHAGVSVVMA
QAQPRREKRWSEWASGKVLCLLDPLDGVYNYLAQQRCNLDDTWEGKIYRVLAGNPAK
HDLDIKDNNNSTPTVISHRLHFPEGGSLAALTAHQACHLPLEAFTRHRQPRGWEQLEQC
GYPVQRLVALYLAARLSWNQVDQVIRNALASPGSGGDLGEAIREQPEQARLALTLAAA
ESERFVRQGTGNDEAGAASADVVSLTCPVAKDQNRTKGECAGPADSGDALLERNYPTG
AEFLGDGGDVSFSTRGTQNWTVERLLQAHRQLEERGYVFVGYHGTFLEAAQSIVFGGV
RARSQDLDAIWRGFYIAGDPALAYGYAQDQEPDARGRIRNGALLRVYVPRWSLPGFYR
TGLTLAAPEAAGEVERLIGHPLPLRLDAITGPEEEGGRVTILGWPLAERTVVIPSAIPTDPR
NVGGDLDPSSIPDKEQAISALPDYASQPGKPPREDLK

SEQ. ID NO. 8: CONSTRUCT A CONTAINING A118-S130 FROM EXAMPLE 2

MKKTAIAIAVALAGFATVAQADVIIKPQVSGVIVNKLFKAGDKVKKGQTLFIIEQDQASK
DFNRSKALFSQLDHTEIKAPFDGTIGDALVNIGDYVSASTTELVRVTNLNPIYADGSHHH
HHH

SEQ. ID NO. 9: CONSTRUCT B CONTAINING F122-E138 FROM EXAMPLE 2

MKKTAIAIAVALAGFATVAQADVIIKPQVSGVIVNKLFKAGDKVKKGQTLFIIEQDQ**FN**
RSKALFSQSAISQKELDHTEIKAPFDGTIGDALVNIGDYVSASTTELVRVTNLNPIYADGS
HHHHHH

SEQ. ID NO. 10: CONSTRUCT C CONTAINING D121-A127 FROM EXAMPLE 2

MKKTAIAIAVALAGFATVAQADVIIKPQVSGVIVNKLFKAGDKVKKGQTLFIIEQDQDF
NRSKALDHTEIKAPFDGTIGDALVNIGDYVSASTTELVRVTNLNPIYADGSHHHHHH

SEQ. ID NO. 11: AMINO ACID SEQUENCE OF THE SOLUBLE ACRA PROTEIN FROM EXAMPLE 3

MKYLLPTAAAGLLLLAAQPAMAMHMSKEEAPKIQMPPQPVTTMSAKSEDLPLS/TYPA
KLVSDYDVIIKPQVSGVIVNKLFKAGDKVKKGQTLFIIEQDKFKASVDSAYGQALMAKA
TFENASK**DFNRS**KALFSKSAISQKEYDSSLATFNNSKASLASARAQLANARIDLDHTEIK
APFDGTIGDALVNIGDYVSASTTELVRVTNLNPIYADFFISDTDKLNLVRNTQSGKWDLD
SIHANLNLNGETVQGKLYFIDSVIDANSGTVKAKAVF**DNNNS**TLLPGAFATITSEGFIQK
NGFKVPQIGVKQDQNDVYVLLVKNGKVEKSSVHISYQNNEYAIIDKGLQNGDKIILDNF
KKIQVGSEVKEIGAQLEHHHHHH

SEQ. ID NO. 12: AMINO ACID SEQUENCE OF THE CTXB PROTEIN FROM EXAMPLE 6

MKKTAIAIAVALAGFATVAQATPQNITDLCAEYHNTQIHTLNDKIFSYTESLAGKREMAI
ITFKNGATFQVEVPGSQHIDSQKKAIERMKDTLRIAYLTEAKVEKLCVWNNKTPHAIAAI
SMANGSHHHHHH

SEQ. ID NO. 13: AMINO ACID SEQUENCE OF THE OMPH1 PROTEIN OF *CAMPYLOBACTER JEJUNI* (STRAIN 81-176) FROM EXAMPLE 7

MKKILLSVLTTFVAVVLAACGGNSDSKTLNSLDKIKQNGWRIGVFGDKPPFGYVDEKG
NNQGYDIALAKRIAKELFGDENKVQFVLVEAANRVEFLKSNKVDIILANFTQTPERAEQ
VDFCLPYMKVALGVAVPK**DSNIT**SVEDLKDKTLLLNKGTTADAYFTQDYPNIKTLKYD
QNTETFAALMDKRGDALSHDNTLLFAWVKDHPDFKMGIKELGNKDVIAPAVKKGDKE
LKEFIDNLIIKLGQEQFFHKAYDETLKAHFGDDVKADDWIEGGKILEQKL/SEEDL

SEQ. ID NO. 14: FORWARD OLIGO FOR AMPLIFYING EPA USING PCR IN EXAMPLE 10

5'-AAGCTAGCGCCGCCGAGGAAGCCTTCGACC

SEQ. ID NO. 15: REVERSE OLIGO FOR AMPLIFYING EPA USING PCR IN EXAMPLE 10

5'-AAGAATTCTCAGTGGTGGTGGTGGTGCTTCAGGTCCTCGCGCGGCGG

SEQ. ID NO. 16: PHOSPHORYLATED OLIGONUCLEOTIDE USED TO CONSTRUCT pGVXN70 IN EXAMPLE 10

5'-GAAGGCGGGCGCGTGACCATTCTCGGC

SEQ. ID NO. 17: PHOSPHORYLATED OLIGONUCLEOTIDE USED TO CONSTRUCT pGVXN70 IN EXAMPLE 10

5'-GCCGAGAATGGTCACGCGCCCGCCTTC

SEQ. ID NO. 18: OLIGO FOR QUICK CHANGE MUTAGENESIS USING pGVXN70 AS A TEMPLATE IN EXAMPLE 10

5'-CCTGACCTGCCCCGGGGAATGCGCGG

SEQ. ID NO. 19: OLIGO FOR QUICK CHANGE MUTAGENESIS USING pGVXN70 AS A TEMPLATE IN EXAMPLE 10

5'-CCGCGCATTCCCCGGGGCAGGTCAGG

SEQ. ID NO. 20: OLIGO FOR PRODUCTION OF pGVXN137 IN EXAMPLE 10

5'- GTCGCCAAAGATCAAAATAGAACTAAA

SEQ. ID NO. 21: OLIGO FOR PRODUCTION OF pGVXN137 IN EXAMPLE 10

5'- TTTAGTTCTATTTTGATCTTTGGCGAC

SEQ. ID NO. 22: OLIGO FOR INSERTION OF ADDITIONAL GLYCOSYLATION SITE INTO pGVXN137 IN EXAMPLE 10

5'-CATGACCTGGACATCAAGGATAATAATAATTCTACTCCCACGGTCATCAGTCATC

SEQ. ID NO. 23: OLIGO FOR INSERTION OF ADDITIONAL GLYCOSYLATION SITE INTO pGVXN137 IN EXAMPLE 10

5'-GATGACTGATGACCGTGGGAGTAGAATTATTATTATCCTTGATGTCCAGGTCATG